

77. (Amended) The method of claim 76 wherein the transformed cereal plant seed is from maize or sorghum.
- Sub 27 78. (Amended) The method of claim 95 wherein the plant derived polynucleotide encodes HT12 or ESA.
79. (Amended) A transformed cereal plant seed produced by the method of claim 95.
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- Sub 27 112 90. (Amended) The expression cassette according to claim 104 wherein the promoter is a gamma zein promoter or a waxy promoter.
91. (Amended) A vector comprising the expression cassette of claim 104.
92. (Amended) A cereal plant cell transformed with the vector of claim 91.
93. (Amended) A transformed cereal plant comprising the vector of claim 91.

Please add new claims 95-111 as follows:

- 43 27 --95. A method for increasing the level of lysine or a sulfur-containing amino acid in a cereal plant seed, the method comprises transforming a cereal plant cell with an expression cassette and regenerating a transformed cereal plant to produce a transformed cereal plant seed, wherein the expression cassette comprises a seed endosperm-preferred promoter operably linked to a plant derived polynucleotide encoding a polypeptide, and wherein expression of the polypeptide increases the level of lysine or a sulfur-containing amino acid in the transformed cereal plant seed compared to a corresponding non-transformed cereal plant seed.

96. The method of claim 95 wherein the seed endosperm-preferred promoter is heterologous to the plant derived polynucleotide.
97. A transformed cereal plant seed which has been transformed with a plant derived polynucleotide to express a polypeptide in endosperm of the transformed cereal plant seed, wherein the transformed cereal plant seed exhibits an elevated level of lysine or a sulfur-containing amino acid compared to a corresponding non-transformed cereal plant seed.
98. The transformed cereal plant seed of claim 97 wherein the transformed cereal plant seed is from maize, wheat, rice, or sorghum.
99. The transformed cereal plant seed of claim 98 wherein the transformed cereal plant seed is from maize or sorghum.
100. The transformed cereal plant seed according to claim 97 wherein the amount of lysine or sulfur-containing amino acid in the transformed cereal plant seed is increased at least about 10 percent by weight compared to a corresponding non-transformed cereal plant seed.
101. The transformed cereal plant seed according to claim 100 wherein the amount of lysine or sulfur-containing amino acid in the transformed cereal plant seed is increased at least about 15 percent by weight to about 10 times compared to a corresponding non-transformed cereal plant seed.
102. The transformed cereal plant seed according to claim 101 wherein the amount of lysine or sulfur-containing amino acid in the transformed cereal plant seed is increased at least about 20 percent by weight to about 10 times compared to a corresponding non-transformed cereal plant seed.

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103. A food or feed product produced from the transformed cereal plant seed of claim 97.
104. An expression cassette comprising a seed endosperm-preferred promoter operably linked to a plant derived polynucleotide encoding a polypeptide having about 7 mole % to about 50 mole % lysine or about 6 mole % to about 40 mole % of a sulfur containing amino acid.
105. The expression cassette of claim 104 wherein the seed endosperm-preferred promoter is heterologous to the plant derived polynucleotide.
106. A seed from a transformed cereal plant which has been transformed with a plant derived polynucleotide to express a polypeptide in the endosperm of the transformed cereal plant seed, wherein the transformed cereal plant seed exhibits an elevated level of lysine or a sulfur-containing amino acid compared to a corresponding non-transformed cereal plant seed.
107. A method for increasing the level of lysine or a sulfur-containing amino acid in a maize seed, the method comprises transforming a maize cell with an expression cassette and regenerating a transformed maize plant to produce a transformed maize seed, wherein the expression cassette comprises a seed endosperm-preferred promoter operably linked to a plant derived polynucleotide encoding a polypeptide, and wherein expression of the polypeptide increases the level of lysine or a sulfur-containing amino acid in seed of the transformed maize plant compared to seed of a corresponding non-transformed maize plant.
108. The method of claim 107 wherein the seed endosperm-preferred promoter is heterologous to the plant derived polynucleotide.